

8-31-2023

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Recommended Citation

Peters, Pamela (2023) "Small Historically Black Colleges and Universities Bridging Social Capital: The Use of Language, Tone and Content to Share Information on Instagram," *Journal of Research Initiatives*: Vol. 8: Iss. 1, Article 1.

Available at: <https://digitalcommons.uncfsu.edu/jri/vol8/iss1/1>

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Small Historically Black Colleges and Universities Bridging Social Capital: The Use of Language, Tone and Content to Share Information on Instagram

About the Author(s)

Pamela Peters, PhD is a faculty member at Western Illinois University whose research focuses on race, ethnicity, diversity and inclusion related to representation in journalism and social media, particularly in digitally mediated spaces.

Keywords

HBCU, social media, social capital, Instagram, higher education, COVID-19



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Abstract

The COVID-19 pandemic has strained higher education institutions, especially small Historically Black Colleges and Universities (HBCUs). As campuses closed and reopened, Black communities' digital divide grew, adding to the need to stay connected. This study uses social capital to examine how institutions use language, tone, content, and information to bridge social capital. An analysis of 35 small liberal arts HBCUs' Instagram posts was undertaken to compare post frequency, types of information, engagement, tone, language, and content in 2019 before the COVID-19 pandemic and during the pandemic, 2020 and 2021. This study indicates that post-oversaturation in 2020 and 2021 and information type may factor into post-engagement from stakeholders. Using a casual tone, language not using "your" terminology, and content without graphics has more engagement. More comments in 2020 and 2021 indicate that stakeholders may have sought to bridge social capital.

Keywords: HBCU, social media, social capital, Instagram, higher education, COVID-19

Introduction

Between 1986 and 2020, six Historically Black Colleges and Universities (HBCUs) lost accreditation, and more are facing a similar fate due to declines in enrollment and financial struggles (Mhute, 2019; Toppo, 2018). All six schools closed except Knoxville College in Tennessee and Morris Brown College in Atlanta, Georgia. In 2019, Bennett College in North Carolina was on the verge of losing its accreditation due to a lack of financial stability until a fundraising campaign and lawsuit against the accrediting body, the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), was filed. Since then, they were granted candidacy in the Transnational Association for Christian Colleges and Schools (TRACS).

Paine College in Georgia lost a lawsuit against SACSCOC in 2019 and lost its accreditation due to financial instability. The college suffered a drop in enrollment since nearly 95% of the students who attended were on financial aid (Toppo, 2018) but have since been re-accredited by TRACS.

Many HBCUs struggle to raise money for endowments, recruit students, and support an underrepresented population of low-income and first-generation college students (FGCS). An added strain comes from being supported by a population that, on average, comes from a lower socioeconomic background, being historically underfunded compared to predominantly white institutions, and the added strain of the digital divide, which was made more prominent by COVID-19 (Harper, 2020; Sturgis & Johnson-Ross, 2019). Institutions must find affordable ways to stay connected with their stakeholders (current students, potential students, faculty, staff, and alums), whether on or off campus. Social media may offer one solution to bridge social capital and compensate for the digital divide.

Social capital has been researched as a way for institutions of higher education to support FGCS in their matriculation through college by understanding how they build relationships online and search for information (Rowan-Kenyon et al., 2016; Rowan-Kenyon et al., 2018). Research has focused on higher education institutions' use of Facebook in developing relationships with current and potential students (Ellison et al., 2007; Ellison et al., 2014). However, there needs to be more research on using Instagram in higher education or using social media by HBCUs. This study will use social capital theory to do a content analysis of Instagram posts by HBCUs with a population of under 2000 students. By understanding the content, language, and tone stakeholders interact with, HBCUs and other institutions primarily serving underrepresented groups can create strategies to effectively use social media to build relationships and community with their stakeholders.

Literature Review

The COVID-19 pandemic has expanded the struggles of families from low socioeconomic backgrounds, many of whom HBCUs historically serve. Over 70% of the students who attend HBCUs have limited financial resources, while three in five identify as first-generation or low-income students, and this population is growing (Smith-Barrow, 2019). As these institutions deal with the challenges of working with an often-underprepared population, they do it with less funding than predominantly white institutions, an alum base that does not

consistently have high levels of wealth, raising tuition rates, and low endowments (Sturgis & Johnson-Ross, 2019; Thomas & Spencer, 2020). HBCUs have successfully graduated most of the United States Black doctors, lawyers, judges, teachers, and STEM professionals (Smith-Barrow, 2019). However, many students who come to these institutions need extra support as they adjust to life in college and transcend socioeconomic gaps.

Challenges for first-generation and low-income students entering college

FGCS and students from low-income backgrounds often face more challenges entering college than students with parents who attended college or those from higher socioeconomic backgrounds. First-generation students, students of color, and low-income students are less likely to enroll in college than students from white and higher-income backgrounds (Winkle-Wagner & Locks, 2020). Research has found that many FGCS did not have sufficient family support in admissions, financial aid, and the classroom due to a lack of understanding of the higher education culture since their parents did not attend college (Winkle-Wagner & Locks, 2020; Wohn et al., 2013). Many of these students also needed more financial support since most FGCS were also identified as low-income (Watkins et al., 2018; Wilbur & Roscigno, 2016; Winkle-Wagner & Locks, 2020). Even students who are FGCS but are not low-income still may need help (Wilbur & Roscigno, 2016), often because they are afraid to ask or need to know how to access the information they need (Garces-Jimenez, 2020). The COVID-19 pandemic has brought many of the struggles for FGCS to the forefront, but their challenges may be growing due to the widening gap in the digital divide.

The pandemic caused the digital divide to become more prevalent among underrepresented groups (Harper, 2020; Jackson-Nevels et al., 2020) as FGCS attending minority-serving institutions do not enter college with the digital skills needed for academic success (Buzzetto-Hollywood et al., 2018). The digital divide refers to a technology gap in access or a gap in digital literacy, the ability to find or translate information. The access gap in the United States is closing, but not as quickly as once thought; only around 80 percent of whites and 50 percent of Blacks and Latinos own a computer and have household internet (Perrin & Turner, 2019). Around 26 percent of households in the United States rely on smartphones for the internet (Anderson & Kumar, 2019). However, having physical access to some form of technology only sometimes means that the user has the knowledge to find or translate reliable

information. Research has found that people who can easily access information still have difficulty interpreting the information they find (Brown et al., 2015; Buzzetto-Hollywood et al., 2018). This can cause the user to become frustrated, limit their use, and lead to lower-quality outcomes (van Deurson & Helsper, 2018). The inability to find or evaluate information, such as scholarships, can lead students to struggle or give up in the recruitment and financial aid process. Overcoming the digital divide and connecting with students is a more significant challenge for financially struggling institutions.

Bridging social capital to engage with stakeholders

Social capital refers to the relationships people or institutions build and maintain with each other and their stakeholders. There are two types of social capital that most researchers focus on bridging and bonding. Bridging social capital is the weak tie relationships established to benefit one or both parties, usually through providing information (Putnam, 2000; Rowan-Kenyon et al., 2018). Bonding social capital is the strong ties people create through similar interests or backgrounds established over time; these are friends or family (Putnam, 2000; Rowan-Kenyon, 2018). People and institutions can transform their social capital by developing relationships through online social networks (Robinson et al., 2015). People will use technology to establish relationships to find information or seek out people with similar interests.

As discussed previously, FGCS and low-income students may need more of the beneficial relationships that can help them matriculate through admissions and later graduation. Disadvantaged minorities and students from lower-income backgrounds tend to have smaller social networks (Robinson et al., 2015), but social connections are a crucial part of the education process (Davis et al., 2015; Ellison et al., 2007; Ellison et al., 2014). Students who lack social connections in their home environments could develop beneficial relationships online. Ellison, Vitak, and Lampe (2014) found that students build relationships on Facebook and find information by responding to people outside their networks by commenting on friends' feeds. Although students may not have strong ties with people familiar with the admissions and financial aid process, they can develop weak ties with people online to find information (Ellison et al., 2007; Ellison et al., 2014). Social media offers prospective students another resource outside the institutional website and their immediate environments to find reliable information.

Institutions can build their brand and social capital with stakeholders by providing access to information in multiple online spaces.

Social media and stakeholder engagement

Institutions use social media to seek feedback in different forms of engagement: reactions, comments, or sharing. How an institution utilizes a social media outlet can affect the number of engagements they receive (Lund & Wang, 2020; Peruta & Shields, 2017; Peruta & Shields, 2018). The goal of using social media is to raise the institution's reach by having as many followers as possible engage with a post. The type of information an institution posts can impact the number of interactions a page receives (Lund & Wang, 2020). However, posting without a strategy or frequently throughout the day can lead to lower engagement or a "saturation point," where fewer followers engage due to too many posts (Peruta & Shields, 2017; Peruta & Shields, 2018). This requires institutions to create a strategy to engage with their stakeholders.

Le, Dobele, and Robinson (2019) found that, when gathering information, prospective students will check for information on institutional websites and social media. They will visit multiple sources they feel comfortable using but are only sometimes aware of the reliability of the information they find. The current generation of students has grown up with digital technology, and it is a familiar resource they turn to when searching for information (Davis et al., 2015; Peruta & Shields, 2017). Using social media as another space to reach prospective students can also be an outlet to support expanding institutions' brands to reach other stakeholders. Like an institution's website, social media should reach multiple stakeholders, including current students, alums, faculty, staff, and the surrounding community (Lund & Wang, 2020). Institutions must engage with their community to build brand trust and maintain engagement to support different brand elements (Habibi et al., 2014). Providing information for multiple types of stakeholders builds trust by allowing students to evaluate their potential choices in multiple stages throughout the year to determine if the institution is a good fit (Le et al., 2019; Lund & Wang, 2020; Rowan-Kenyon et al., 2016; Rowan-Kenyon et al., 2018). By providing access to what is happening within the campus community, potential students can get a feel for what life will be like at the institutions.

Establishing a specific tone and language can affect stakeholders' relationship with an institution (Sorenson et al., 2017). FGCS can often feel marginalized when they first enter a

campus environment; by making them and other stakeholders feel that they play a role in the success of an institution, they are helping build their brand and community and bridge social capital. Communication with prospective students should be "engaging and authentic" to strengthen the connections (Rowan-Kenyon et al., 2016). However, it should also be audience-appropriate to generate engagement with an institution's specific community (Sorenson et al., 2017). Providing relevant information and developing an engaging tone can help bridge social capital by reaching potential students in outlets where they are comfortable.

Reaching stakeholders through Instagram

Due to a variety of stakeholders, institutions of higher education must consider how they will reach their followers without alienating a particular group. In order to fulfill needs in retention, recruitment, and endowments, organizations must stimulate and engage with their social networks by reaching out on different platforms (Constantides & Stagno, 2011). Active engagement allows businesses and organizations to bridge social capital with their stakeholders. Institutions can develop or sustain relationships by sharing information and letting stakeholders know they matter (Constantides & Stagno, 2011; Lund & Wang, 2020). When researching engagement on Facebook, Lund and Wang (2020) found that involving a human element, rather than advertising or sharing information, creates more interaction with their followers. The number of interactions on each post can also help social media managers determine how much support the institutions have from their stakeholders (Lund, 2019). Social media engagement and interactions can determine whether institutions are reaching their stakeholders and bridging social capital.

Le, Dobele, and Robinson (2019) determined that there are five factors potential students consider when they are looking for a school: reputation, career prospects, teaching, administration, and student life. To recruit and retain students, colleges and universities must ensure their audience is being reached to build their reputation. As mentioned previously, research on Facebook determined that institutions should consider the type of tone and language they are using when they post (Sorenson et al., 2017) and the content they are sharing (Le et al., 2019; Sorenson et al., 2017). Social media offers several outlets to reach stakeholders in various ways; among the most popular are Facebook, Twitter, YouTube, Snapchat, and Instagram.

Mobile social media is gaining popularity since it allows easy access, and phone numbers can be connected to apps to make friend requests (Chen & Li, 2017). The most popular form of social media among 18 to 29-year-olds is Instagram due to its ease of use and mobility, but it is growing in popularity among other age groups (Auxier & Anderson, 2021). Users find the visual imagery of Instagram, predominantly pictures and videos, more engaging than platforms like Twitter and Facebook (Shane-Simpson et al., 2018). Phua, Jin, and Kim (2017) determined that users who followed a brand on Instagram were more engaged and were more likely to engage with others they did not know over Twitter, Facebook, and Snapchat, and they exhibited higher brand commitment (Phua et al., 2017; Shane-Simpson et al., 2018). As Instagram use among young adults grows, higher education institutions are using the platform to reach followers, but there needs to be more research on how schools share content.

Research on higher education social media use has focused predominantly on Twitter and Facebook (Le et al., 2019; Lund, 2019; Lund & Wang, 2020). Lund and Wang (2020) examined 50 colleges and universities to determine how stakeholders interacted with the information the schools posted by analyzing the engagement for each post type. They found that stories with a human element were the most interacted with and most likely to build social capital with their stakeholders. Sorenson, Andrews, and Drennan (2017) determined that businesses that used a predetermined strategy for posting content type, language, and tone built better brand trust, thus creating a more likely outlet for bridging social capital. Online social capital, built through social media, is still a relatively new area with limited research (Pitas & Ehmer, 2020). Understanding how stakeholders of higher education institutions interact on social media based on post frequency, information type, content, tone, and language may help smaller or struggling institutions obtain more revenue, build their recruitment platforms, and retain more students. By examining Instagram posts, institutions can determine how to utilize the platform to develop strategies to better connect with more stakeholders, specifically current and potential students. This study will build on Lund and Wang (2020) and Sorensen, Andrews, and Drennan (2017) by examining post frequency, information type, content, language, and tone of Instagram posts at small HBCUs to determine how stakeholders engage on Instagram.

RQ1: What was the Instagram post frequency of small HBCUs in 2020 and 2021 during the COVID-19 pandemic compared to 2019, prior to the pandemic?

RQ2: What are the relationships between content type and the number of interactions with posts?

RQ3: What are the relationships between language, tone, and the number of interactions with posts?

Previous research by Lund and Wang (2020) found that posts about human interest, mainly student and faculty achievements, had higher interactions. Based on their findings, this study expects to find that:

H1: Posts with types of information related to human interest will have more interactions than other information types.

Method

This study used a sample of liberal arts HBCUs with a population of 2000 based on CollegeStats.org (2022), categorizing schools by student population or cost. The researcher focused on HBCUs with smaller populations since previous studies have found that larger higher education institutions handled the transition to online at the beginning of the COVID-19 pandemic better than many smaller HBCUs (Harper, 2020; Jackson-Nevels et al., 2020). Also, smaller, less prestigious institutions are more vulnerable than larger, prestigious schools (Burki, 2020). Thirty-five of the 101 liberal arts HBCUs identified by the U.S. Department of Education's website (2021) fit the criteria for this study.

The study used Instagram since around 71 percent of 18 to 29-year-olds use Instagram (Auxier & Anderson, 2021), and this is a large target population for colleges and universities. Posts were collected between April to July of 2019, 2020, and 2021 to cover similar periods before the COVID-19 pandemic, at the beginning, and a year into the pandemic. The months cover many events throughout the school year, including graduation, recruitment, and classes. The information in the Instagram posts was examined using a content analysis with a manual coding set. Each post was read, the data were reread when there were any questions, the data was compared to the codes, and each post was assigned to one code based on the best fit within the coding protocol.

Seven codes were adapted based on the Facebook study of Lund and Wang (2020). Three more were added to account for alums, academics, and COVID-19, which were not part of their study. Codes included:

1. "Events"- Special campus events (Examples: Founders Day and commencement)
2. "Athletics"- Athletic specific
3. "Extracurricular"- Student life (Examples: chapel, pageants, Greek life)
4. "Admissions/Enrollment/Financial Aid"- Recruitment, scholarships, FAFSA, registration or New Student Orientation
5. "Student Success"- Student accomplishments, awards, or profiles
6. "Faculty/Staff Success"- Faculty/staff accomplishments, awards or profiles
7. "Alumni" – Highlighting alumni-related events and accomplishments.
8. "Academics" – Academic announcements, events, programs, or success
9. "General"- Campus information not included in other categories (Examples: administration messages, announcements, alumni or stakeholder passing)
10. "COVID-19"- COVID-19 that did not relate to other categories

Interactions were adapted from Lund and Wang (2020) and refer to likes and comments on Instagram. Shares were not recorded because they require third-party applications and are not recorded on the app. Language, tone, and content codes were adapted based on the study of Sorenson, Andrews, and Drennan (2017). Language codes were "we/us," the institutions refer to themselves as part of the collective community. "You," the institutions addressed their audience in the second person. "College Name," the institution referred to themselves by name. "Professional" or "casual" refers to how they sounded and related to their audience. Content refers to the visuals being shared in posts: "photograph," "graphic," "video," "meme," or "other."

Each post was assigned a code for information type, then the number of reactions and comments were recorded. The total posts for each code in each year were compared to determine if there was a difference. The total reactions for each code under language, tone, and content were compared to determine if there was a difference. Data analyses were performed using SPSS. One-way ANOVA tests were used to compare the mean of reactions and comments of the total number of posts for each year, differences in comments and reactions between each year, differences in types of content for each year, and differences between information type and language. Independent-sample t-tests were used to compare the difference in means of reactions to differences between COVID-19 posts and professional and casual tones.

Results

To determine the Instagram frequency for small HBCUs before COVID-19 in 2019 and the two years during the pandemic, 2020 and 2021, the total posts for the 35 institutions were combined for each year. There was a total of 6499 posts analyzed for this study. The total posts for 2019 was N=1788, 2020 was N=2098, and 2021 was N=2613.

Table 1
Total Posts Compared Over Three Years

Years	Year One			Year Two			MD	p
	N	M	SD	N	M	SD		
Reactions								
2019/2020	1788	80.74	87.04	2098	70.79	98.17	9.95	0.007
2019/2021	1788	80.74	87.04	2613	76.05	114.76	4.69	0.295
2020/2021	2098	70.79	98.17	2613	76.05	114.76	5.26	0.186
Comments								
2019/2020	1788	2.18	8.39	2098	2.36	10.01	0.18	0.778
2019/2021	1788	2.18	8.39	2613	2.21	6.05	0.03	0.992
2020/2021	2098	2.36	10.01	2613	2.21	6.05	0.15	0.812

Table 1 shows the differences in engagement and comments between the three years. Reactions were the highest form of engagement in 2019 (M=80.74, SD=87.04). There was a significant difference between reactions in 2019 and those in 2020 (M=70.79, SD=98.17), $p=0.007$. There were no other significant differences in reactions between the other years. There were no significant differences in comments between the three years. Comments in 2020 were the highest, while 2019 had the lowest.

Table 2
Information Types Reactions by Year

Years	Year One			Year Two			MD	p
	N	M	SD	N	M	SD		
Events								
2019/2020	245	109.77	120.67	151	74.97	99.80	34.80	0.041
2020/2021	151	74.97	99.80	228	122.52	174.45	47.56	0.003
Extracurricular								
2019/2020	305	50.64	50.01	294	34.96	38.84	15.68	0.001
2019/2021	305	50.64	50.01	289	37.93	71.03	12.71	0.013
Student Success								
2019/2021	319	109.99	91.61	253	149.55	147.26	39.56	0.000
2020/2021	225	120.52	121.17	253	149.55	147.26	29.03	0.023
COVID-19								
2020/2021	86	52.84	54.77	104	27.10	35.77	25.74	0.000

Table 2 shows the significant differences in reactions of information types and years. There were significant differences in reactions between 2019 and 2020 in "Events" (2019 M=109.77, 2020 M=74.97) and "Extracurricular" (2019 M=50.64, 2020 M=34.96). There were significant differences in reactions between 2019 and 2021 in "Extracurricular" (2019 M=50.64, 2021 M=37.93) and "Student Success" (2019 M=109.99, 2021 M=149.55). There were significant differences in reactions between 2020 and 2021 in "Events" (2020 M=74.97, 2021 M=122.52), "Student Success" (2020 M=120.52, 2021 M=149.55) and COVID-19 (2020 M=52.84, 2021 M=27.10).

Table 3
Differences in Reactions Between Information Types

Information Type	Type One			Type Two			MD	p
	N	M	SD	N	M	SD		
Events/Extra.	625	106.19	139.70	887	41.23	55.11	64.96	0.000
Events/Adm.	625	106.19	139.70	1081	47.62	72.62	58.57	0.000
Events/Acad.	625	106.19	139.70	246	52.92	79.64	53.27	0.000
Events/General	625	106.19	139.70	1927	76.85	107.12	29.34	0.000
Events/COVID	625	106.19	139.70	190	38.75	47.03	67.44	0.000
Athletics/Extra.	185	89.53	100.42	887	41.23	55.11	48.30	0.000
Athletics/Adm.	185	89.53	100.42	1081	47.62	72.62	41.91	0.000
Athletics/Acad.	185	89.53	100.42	246	52.92	79.64	36.61	0.000
Athletics/COVID	185	89.53	100.42	190	38.75	47.03	50.78	0.000
Student/Events	797	125.40	120.94	625	106.19	139.70	19.21	0.010
Student/Athletics	797	125.40	120.94	185	89.53	100.43	35.87	0.000
Student/Extra.	797	125.40	120.94	887	41.23	55.11	84.17	0.000
Student/Adm.	797	125.40	120.94	1080	47.62	72.62	77.78	0.000
Student/Faculty	797	125.90	120.94	247	96.04	87.23	29.35	0.002
Student/Alumni	797	125.90	120.94	314	90.78	100.79	34.62	0.000
Student/Acad.	797	125.90	120.94	246	52.92	79.64	72.48	0.000
Student/General	797	125.90	120.94	1927	76.85	107.12	48.55	0.000
Student/COVID	797	125.90	120.94	190	38.75	47.03	86.65	0.000
Faculty/Extra.	247	96.04	87.32	887	41.23	55.11	54.82	0.000
Faculty/Adm.	247	96.04	87.32	1081	47.62	72.62	48.43	0.000
Faculty/Acad.	247	96.04	87.32	246	52.92	79.64	43.13	0.000
Faculty/COVID	247	96.04	87.32	190	38.75	47.03	57.29	0.000
Alumni/Extra	314	90.78	100.79	887	41.23	55.11	49.55	0.000
Alumni/Adm.	314	90.78	100.79	1081	47.62	72.62	43.16	0.000
Alumni/Acad.	314	90.78	100.79	246	52.92	79.64	37.86	0.000
Alumni/COVID	314	90.78	100.79	190	38.75	47.03	37.86	0.000
General/Extra.	1927	76.85	107.12	887	41.23	55.11	35.62	0.000
General/Adm.	1927	76.85	107.12	1081	47.62	72.62	29.23	0.000
General/COVID	1927	76.85	107.12	190	38.75	47.03	38.10	0.000

Table 3 shows differences in reactions based on the type of information shared. "Events" (N=625, M=106.19) had significantly higher reactions between all information types except "Student Success," "Faculty Success," "Athletics," and "Alumni." The "Athletics" (N=185, M=89.53) information type had significantly higher reactions than other information types except "Events," "Student Success," "Faculty Success," "Alumni," and "General." The "Student Success" (N=797, M=125.40) information type had significantly higher reactions than all the

other information types. The "Faculty/Staff Success" information type was significantly higher except for "Events," "Athletics," "Student Success," "Alumni," and "General." The "Alumni" (N=314, M= 90.78) information type had significantly higher reactions to every category except "Events," "Athletics," "Student Success," "Faculty/Staff Success," and "General." The "General" (N=1927, M=76.85) information type had significantly higher reactions compared to "Extracurricular" (N=887, M=41.23), "Admissions" (N=1081, M=47.62) and "COVID-19" (N=190, M=38.75).

Table 4
Information Types Comments by Year

Years	Year One			Year Two			MD	p
	N	M	SD	N	M	SD		
Extracurricular 2019/2021	305	2.12	11.81	289	0.67	1.92	1.45	0.037
Student Success 2019/2021	319	2.50	6.65	253	4.79	8.78	2.29	0.001
Faculty/Staff Success 2019/2020	86	2.73	3.98	54	8.70	24.24	5.97	0.025
COVID-19 2020/2021	86	1.08	2.15	104	0.43	1.19	0.65	0.009

Table 4 shows the differences in comments by year. There were significant differences in comments between 2019 and 2020 in the "Faculty/Staff Success" (2019 M=2.73, 2020 M=8.70) information type, with 2020 having significantly higher comments. There were significant differences between 2019 and 2021 in the "Extracurricular" (2019 M=2.12, 2021 M=0.67) and "Student Success" (2019 M=2.50, 2021 M=4.79) information types. The "Extracurricular" comments were higher in 2019, while in 2021, the "Student Success" was significantly higher. "COVID-19" had significantly higher comments in 2020 (M=1.08) compared to 2021 (M=0.43).

Table 5
Differences in Comments Between Information Types

Information Type	Type One			Type Two			MD	p
	N	M	SD	N	M	SD		
Events/Extra.	625	2.72	14.74	887	1.25	7.21	1.47	0.018
Events/Adm.	625	2.72	14.74	1081	1.22	4.33	1.49	0.009
Student/Extra.	797	3.56	7.35	887	1.25	7.21	2.31	0.000
Student/Adm.	797	3.56	7.35	1081	1.22	4.33	2.34	0.000
Student/Acad.	797	3.56	7.35	246	1.31	4.19	2.25	0.006
Student/General	797	3.56	7.35	1927	2.37	7.97	1.19	0.018
Student/COVID	797	3.56	7.35	190	0.73	1.72	2.83	0.001
Faculty/Events	247	5.06	13.25	625	2.72	14.74	2.34	0.005
Faculty/Extra.	247	5.06	13.25	887	1.25	7.21	3.81	0.000
Faculty/Adm.	247	5.06	13.25	1081	1.22	4.33	3.84	0.000
Faculty/Alumni	247	5.06	13.25	314	2.82	4.28	2.24	0.038
Faculty/Acad.	247	5.06	13.25	246	1.31	4.19	3.74	0.000
Faculty/General	247	5.06	13.25	1927	2.37	7.97	2.69	0.000
Faculty/COVID	247	5.06	13.25	190	0.73	1.72	4.33	0.000
General/Events	1927	2.37	7.97	887	1.25	7.21	1.21	0.023
General/Adm.	1927	2.37	7.97	1081	1.22	4.33	1.15	0.007

Table 5 shows the differences in comments between information types after the combined three years. The "Events" (N=625, M=2.72) information type had significantly higher comments than the "Extracurricular" (N=887, M=1.25) and "Admissions" (N=1081, M=1.22) information types. "Student Success" was significantly higher than all the information types except the "Events," "Athletics," "Faculty/Staff Success," and "Alumni" information types. "Faculty/Staff Success" (N=247, M=5.06) had significantly higher comments than all the categories except the "Athletics" and "Student Success" information types. The "General" (N=1927, M=2.37) had significantly higher comments than "Events" and "Admissions" (N=1081, M=1.22).

Table 6
Total Post Interactions by Content

Content-Type	Type One			Type Two			MD	p
	N	M	SD	N	M	SD		
Reactions								
Photo/Graphic	2173	119.23	126.51	3526	43.83	62.63	75.39	0.000
Photo/Video	2173	119.23	126.51	800	97.46	120.39	21.76	0.000
Video/Graphic	800	97.46	120.39	3526	43.83	62.63	53.63	0.000
Comments								
Photo/Graphic	2173	3.02	7.47	3526	1.45	8.39	1.57	0.000
Video/Graphic	800	3.70	8.44	3526	1.45	8.39	2.25	0.000

Table 6 shows the differences in interactions based on the content. Photos (N=2173, M=19.23) were significantly more likely to have reactions than a graphic (N=3526, M=43.83) and video (N=800, M=97.46). Videos (N=800, M=97.46) were likelier to have significantly higher reactions than graphics (N=3526, M=43.83). Graphics (N=3526, M=1.45) were significantly less likely to have comments than photos (N=2173, M=3.02) and videos (N=800, M=3.70). Graphics were the most used content type, while videos were the least common.

Table 7
Post Type Reactions by Content

Content-Type	Type One			Type Two			MD	p
	N	M	SD	N	M	SD		
Events								
Photo/Graphic	211	159.61	172.15	310	60.66	84.53	98.94	0.000
Video/Graphic	103	132.67	153.95	310	60.66	84.53	72.01	0.000
Athletics								
Photo/Graphic	50	135.38	124.71	120	69.28	85.69	66.11	0.000
Extracurricular								
Photo/Graphic	225	70.58	70.62	521	22.54	23.38	48.04	0.000
Video/Graphic	142	63.82	77.52	521	22.54	23.38	41.28	0.000
Admissions/Enrollment/Financial Aid								
Photo/Graphic	226	79.59	85.55	722	28.62	46.54	50.97	0.000
Video/Graphic	133	96.41	112.79	722	28.62	46.54	67.79	0.000
Student Success								
Photo/Graphic	483	146.30	132.05	244	86.28	81.91	60.02	0.000
Faculty/Staff Success								
Photo/Graphic	128	114.02	95.77	106	75.63	74.69	38.39	0.002

Photo/Graphic Academics	158	114.90	114.30	117	61.12	71.39	53.78	0.000
Photo/Graphic	95	75.05	94.57	131	29.60	37.74	45.45	0.000
Video/Graphic General	21	96.29	136.45	131	29.60	37.74	66.68	0.001
Photo/Graphic	571	126.50	136.29	1119	45.74	63.75	80.76	0.000
Photo/Video	571	126.50	136.29	236	104.50	135.16	22.01	0.013
Video/Graphic COVID-19	236	104.50	135.16	1119	45.74	63.75	58.76	0.000
Photo/Graphic	26	76.58	60.55	136	27.58	32.72	48.99	0.000
Video/Graphic	28	57.86	65.94	136	27.58	32.72	30.28	0.003

Table 7 shows the reactions to content based on information type. Every information type showed a significant difference in reactions between photos and graphics, with photos being significantly higher in reactions. All the information types showed a significant difference between videos and graphics except the "Athletic," "Student Success," "Faculty/Staff Success," and "Alumni" information types. Video reactions were significantly higher in all the information types, which showed a significant difference between videos and graphics. The "General" information type showed a significant difference between photos (N=571, M=126.50) and videos (N=236, M=104.50).

Table 8
Post Type Comments by Content

Content-Type	Type One			Type Two			MD	p
	N	M	SD	N	M	SD		
Admissions/Enrollment/Financial Aid								
Video/Photo	133	3.87	7.90	226	1.36	3.59	2.51	0.000
Video/Graphic	133	3.87	7.90	722	0.69	3.32	3.19	0.000
Student Success								
Photo/Graphic	483	3.97	7.34	244	2.12	3.39	1.85	0.004
Video/Graphic Academics	70	5.73	13.89	244	2.12	3.39	3.61	0.001
Video/Photo	21	4.57	10.88	95	1.65	3.72	2.92	0.008
Video/Graphic General	21	4.57	10.88	131	0.53	1.55	4.04	0.000
Photo/Graphic	571	3.39	10.34	1119	1.43	5.77	1.96	0.000
Video/Graphic COVID-19	236	4.35	9.61	1119	1.43	5.77	2.91	0.000
Video/Photo	28	1.89	2.60	26	0.65	1.41	1.24	0.018
Video/Graphic	28	1.89	2.60	136	0.50	1.45	1.39	0.000

Table 8 shows the comments based on the type of information. Videos had significantly higher comments in the "Admissions" (Video M=3.87, Graphic M=0.69), "Student Success" (Video M=5.73, Graphic M=2.12), "Academics" (Video M=4.57, Graphic M=0.53), "General" (Video M=4.35, Graphic M= 1.43) and "COVID-19" (Video M=1.89, Graphic M=0.50) information types. "Student Success" (Photo M= 3.97, Graphic M=3.97) and "General" (Photo M=3.39, Graphic M= 1.43) had significantly more comments on photos than graphics. Videos had significantly more comments than photos in the "Admissions" (Video M=3.87, Photo M=1.36), "Academics" (Video M=4.57, Photo M= 1.65) and "COVID-19" (Video M=1.89, Photo M=0.65) information types.

Table 9
Difference in Language

Language Type	Year One			Year Two			MD	p
	N	M	SD	N	M	SD		
Reactions								
We/You	1688	109.05	120.36	3491	46.46	69.12	62.59	0.000
Institution/You	1316	110.41	125.36	3491	46.46	69.12	63.95	0.000
Comments								
We/You	1688	2.93	5.83	3491	1.45	8.66	1.48	0.000
Institution/You	1316	3.52	9.02	3491	1.45	8.66	2.07	0.000

Table 9 shows the difference between the use of language. The use of words like "you" (N=3491, M=46.46) was significantly lower in reactions than using words like "we/us" (N=1688, M=109.05) or the name of the institution (N=1316, M=110.41). Comments had similar results to reactions. Posts using "we/us" (N=1688, M=2.93) or the name of the institution (N=1316, M=3.52) were significantly higher in comments than posts using words similar to "you" (N=3491, M=1.45). Some posts used words similar to "you" more than the other two forms of language.

A significant difference was found in reactions between professional tone (M=74.81, SD=101.07) and casual tone (M=101.65, SD=138.77). The t=3.507, df=6494 and p=0.000. Posts with a casual tone (M=4.39, SD=15.52) had significantly higher comments than posts with a professional tone (M=2.19, SD=7.82). Casual posts (N=184) were less likely to be used than

professionally toned posts (N=6312), but they were more likely to receive more reactions and comments.

Discussion

As discussed previously, to bridge social capital online, an institution or organization must make its audience feel they have a connection or investment in its success. The number of reactions and comments to a post can show whether an institution has strong or weak ties with its stakeholders (Lund, 2019). This study found that bridging social capital occurred when post frequency and engagement were analyzed on the 35 institutions' Instagram pages. This research also found that fewer posts led to more reactions in reactions like Peruta and Shields (2017). In 2019, there were fewer posts than in 2020 or 2021, but there were more reactions in 2019. However, there were more comments in 2020 compared to the other two years; this could be due to stakeholders' desire to stay connected with the institutions or ask questions during uncertainty. In 2020, all the institutions in this study closed to in-person classes, but in the summer of 2021, most announced they would open in-person or hybrid classes. 2021 had the second-highest average comments for total posts, which could be due to a need to reestablish a connection as institutions were reopening. Most comments were to converse with other stakeholders or post congratulatory messages. However, when questions were asked, institutions rarely answered or reacted. Stakeholders interacted with institutions and each other, but institutions may need to be more responsive.

The differences in information types and reactions between the years in the COVID-19 posts between 2020 and 2021, with 2020 having more comments, could be due to stakeholders trying to determine what was happening at the institutions. Providing updates that related to how the schools were proceeding with safety concerns may have led stakeholders to feel as though the institutions were supportive by providing information they may have been lacking or because they were unsure of what to do (Rowan-Kenyon et al., 2016; Winkle-Wagner & Locks, 2020). Reactions in 2021 may have risen since events like graduation took place after being postponed in 2020. Returning to traditional campus activities caused stakeholders to reestablish more active connections with institutions.

Institutions may have reached what Peruta and Shields (2017, 2018) referred to as a saturation point due to repetitive posting or lack of a posting strategy, especially in 2020. The

total posts show that reactions tended to be higher when there were fewer posts, except for the "Events" information type. In 2020, similar posts were often shared multiple times a week or multiple times a day. For instance, multiple student profiles were shared throughout the day, which may have caused one post to overshadow another. Sharing too much information, too much similar information, or repetitive posting within a closed time frame can cause the audience to burn out (Peruta & Shields, 2017, 2018). Burnout from continuously being on digital devices may have led stakeholders to stop looking for missing information. Having a posting strategy could develop more consistent results.

Photographs and videos are popular forms of content for the institutions' audiences. Graphics were the most shared content type and the least popular. Along with announcing events, graphics were used as borders or as extra images on pictures to celebrate stakeholder success. This could be a strategy that needs to be reassessed by institutions since every information type showed photos and videos were significantly more popular than graphics. Videos were more prevalent in relation to receiving comments, especially regarding academics, admissions, and COVID-19. Information shared in videos, such as messages from institutional presidents, messages about new programs, or information regarding entering college, may have made stakeholders feel as though they were receiving emotional or psychological reassurance (Rowan-Kenyon et al., 2018) by creating a feeling of connection (Constantides & Stagno, 2011; Lund & Wang, 2020) or providing more information that supported stakeholders (Rowan-Kenyon et al., 2016; Winkle-Wagner & Locks, 2020). Institutions must consider which part of their community they are trying to engage with and what content is appropriate (Sorenson et al., 2017). When posting information, institutions should consider their message and target audience and then determine which content will bring the most engagement

When sharing information based on the language and tone, institutions should consider which stakeholders they are trying to reach (Le et al., 2019; Sorenson et al., 2017). For instance, if institutions are trying to reach potential or current students, their information should be "engaging and authentic" (Rowan-Kenyon et al., 2016) so the institution can strengthen their connections with the students; this may mean there is a need to change the tone or the language to create a connection with students. This research found that institutions predominantly used "you" language, but posts using more community-oriented language or institution names were

more popular. This could be due to a need to feel that the stakeholders matter to the institution (Constantides & Stagno, 2011; Lund & Wang, 2020). Using unifying language could establish a community ideology in digital spaces.

Using a casual tone brought significantly higher reactions and comments than a professional tone. Institutions may be concerned with the perception of creating posts with a casual tone since most of the posts use a professional tone. However, they may need to adjust their strategies depending on shared information and who they are targeting. When targeting students or promoting extracurricular activities, a more casual tone may be considered "engaging and authentic" (Rowan-Kenyon et al., 2016). Institutions should strategically consider their target audience for each post, content, information type, and how they want to engage in building brand trust (Sorenson et al., 2017) to reach and engage a wider audience.

Posts with a human element and celebrating stakeholder success had the highest interactions and comments. This research supports the finding by Lund and Wang (2020) that sharing information involving a human element creates more interaction. Posts celebrating students were more prevalent in reactions than every post type, and, along with faculty and staff, they had more comments than the other information types. Institutions may develop stronger ties with their audiences by sharing stakeholder success, thus bridging social capital by creating a sense of community (Rowan-Kenyon, 2016). There is an opportunity to eventually bond social capital with some individuals and reach a greater variety of stakeholders. This will require developing posting strategies that involve content, language, and tone and avoiding follower burnout due to post-oversaturation.

Limitations and areas for future research

This study relied on a limited number of schools from a particular demographic. This research could be expanded by analyzing and comparing other minority-serving institutions, predominantly white institutions, small institutions, or larger institutions to determine if the trends are similar.

This research only considered Instagram. Further research could be done on Twitter, LinkedIn, or Facebook to determine if there are better outlets for disseminating particular types of information. Since certain social media outlets are more popular among various demographics, there may be considerations for posting information based on the outlet used.

More research must determine why individuals engage with some content while avoiding others. There needs to be more research focusing on the devices stakeholders use at these institutions to understand better why certain content might be viewed over others. This can help researchers understand how social media can be used to support stakeholders from low-income backgrounds. Finally, there needs to be more research to understand how stakeholders at HBCUs and other minority-serving institutions use digital media to help institutions provide better support in digitally mediated spaces.

Conclusion

This study aimed to address a gap in social media research: to see the differences in engagement on Instagram based on information type, content, language, and tone at small HBCUs. Despite the abovementioned limitations, this study fills an essential gap in literature and provides a base for research into social media, higher education, and social capital. Social media can be an affordable and effective outlet to bridge social capital with current and potential stakeholders, which could be vital to the success of students and institutions, especially those that have historically struggled financially or have faced challenges due to opposing views from society, such as HBCUs. Higher education institutions must proactively determine when to provide information and how content is structured. Sharing posts during or within 24 hours after an event can make it more relevant. Spreading posts throughout the day, with several hours between posts, may be less overwhelming. Potential students, current students, or alums may interact differently based on content, language, and tone, so institutions need to create strategies for their diverse audiences and situations. By promoting stakeholder success, interacting with audiences, and creating a perception of connection, institutions can show they have a personal stake in their communities.

Creating a sense of community, traditionally done by HBCUs, through social media could lead to stronger ties and bonding social capital with some stakeholders digitally and in person. This will allow HBCUs to extend their presence and connection to their campus and surrounding communities. HBCUs have been historical outlets where Black excellence has been celebrated, and students from marginalized communities have outdone societal expectations. While the COVID-19 pandemic disrupted their in-person communities, social media applications can be extended outlets of connection during times of separation or when the campus is open.

This study provides a framework for future research in bridging/bonding social capital and building trust on social media for smaller higher education institutions.

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